

Amendments to the Claims:

Please amend claims 1-12 and 15-18 as shown below.

Please cancel claims 13 and 14.

Please add claims 19-22 as shown below.

The following listing of claims 1-22 will replace all prior versions, and listings, of claims in the application:

Listing of Claims 1-22:

1. (Currently Amended) A cathode ray tube convergence circuit, comprising:

 A a low voltage power supply;

 A a high voltage power supply; and

 A a low-power dissipating switching network which switches between said low voltage power supply and said high voltage power supply relative to said high voltage power supply.

2. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 1, wherein a power dissipation of said low-power switching network is in the range of approximately 25 Watts to approximately 50 Watts.

3. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 1, wherein said low voltage power supply operates between approximately 12V and approximately 24V.

4. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 1, further comprising a divided rail circuit.

5. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 1, wherein said low voltage power supply drives a standard deflection yoke of ~~the~~ a cathode ray tube.

6. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 1, wherein said high-voltage power supply drives a convergence yoke during a retrace interval of ~~the~~ a cathode ray tube.

7. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 1, ~~wherein~~ further comprising:
an output stage ~~receives~~ receiving a first power from one of said power supplies at a particular time, and a second power from the other of said power supplies does not traverse said switch network at said particular time.

8. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 1, wherein said switching network ~~further comprises~~ includes at least one field effect transistor which dissipates less than approximately 200mW of power.

9. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 1, wherein said switching network further includes transistors and diodes.

10. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 1, wherein the convergence circuit drives convergence yokes of the cathode ray tube.

11. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 1, further comprising:

a voltage feedback circuit to initiate said switching between said low voltage power supply and said high voltage power supply.

12. (Currently Amended) A cathode ray tube convergence circuit, comprising:

~~A boost-on-demand circuit which includes a positive polarity convergence circuit,~~ and including a high positive voltage rail and a low positive voltage rail;

a negative polarity convergence circuit including a high negative voltage rail and a low negative voltage rail; and

wherein said positive and negative polarity convergence circuits further ~~comprise~~ include a switching network which operates relative to said high positive voltage rail and said high negative voltage rail.

Amendment/Response

Reply to Office action of 12/19/02

13. (Cancelled)

14. (Cancelled)

15. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 12, wherein said positive polarity convergence circuit outputs high and low positive voltages to deflection yokes of ~~the~~ a cathode ray tube.

16. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 15, wherein said negative polarity convergence circuit outputs high and low negative voltages to deflection yokes of ~~the~~ a cathode ray tube.

17. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 12, wherein said positive polarity convergence circuit and said negative polarity convergence circuit constitute a said boost-on-demand circuit which outputs a high voltage to drive at least one convergence yoke for a relatively short time duration so that output power is conserved.

18. (Currently Amended) A The cathode ray tube convergence circuit as recited in claim 17, wherein said boost-on-demand circuit outputs a low voltage for approximately 75% of an operating time of a the cathode ray tube.

19. (New) A cathode ray tube convergence circuit, comprising:

a polarity convergence circuit including a high voltage rail and a low voltage rail;

an output stage connected to said polarity convergence circuit; and

a switching network switching the connection of said output stage to said polarity convergence circuit between said high voltage rail and said low voltage rail relative to said high voltage rail.

20. (New) The cathode ray tube convergence circuit as recited in claim 19, wherein said switching network includes a transistor having a control input coupled to said high voltage rail.

21. (New) The cathode ray tube convergence circuit as recited in claim 19, further comprising:

a voltage feedback controlling said switching network in switching the connection of said output stage to said first polarity convergence circuit between said high voltage rail and said low voltage rail relative to said high voltage rail.

22. (New) The cathode ray tube convergence circuit as recited in claim 21, wherein said switching network includes a transistor having a control input coupled to said high voltage rail.